

REMARKS

I. Introduction

Claims 8 to 14 are pending in the present application. In view of the following remarks, it is respectfully submitted that the present application is in condition for allowance, and reconsideration is respectfully requested.

II. Rejections of Claims Under 35 U.S.C. § 103(a)

Claims 8 to 10 and 12 to 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Applicants' allegedly admitted prior art ("the AAPA") and U.S. Patent No. 6,078,203 ("Zafarana"), and claim 11 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the AAPA, Zafarana, and U.S. Patent No. 3,714,470 ("Goldberg"). It is respectfully submitted that these rejections should be withdrawn for at least the following reasons.

The present claims relate to a converter. Claim 8, for example, recites that the converter includes a device adapted to sense currents fed to an electric motor powered by the converter. The device is arranged inside the converter. Signals from the device are fed to a nonlinear filter, and output signals of the nonlinear filter are fed to an additional filter that is connected to an analog-to-digital converter.

The AAPA is identified in the Office Action as the material appearing on page 1, lines 5 to 13 of the Specification, to wit:

In the case of converters, is conventional that the actual value I_{actual} of the motor current can be measured, the current-sensing device being situated in the converter. The signals provided by the current-sensing device of the control electronics are initially supplied to a filter 1, e.g., a PT1 filter, as shown in Figure 1. Therefore, microcontroller 2 is provided with filtered measuring signals, and interference signals become suppressible. The PT1 filter may take the form of a low-pass filter having a time constant of, e.g., 20 ps.

As acknowledged in the Office Action, the AAPA does not disclose a nonlinear filter, where output signals of the nonlinear filter are fed to an additional filter. The AAPA also does not disclose an additional filter that is connected to an analog-to-digital converter, as presently claimed. Instead, the AAPA discusses a device in which signals provided by a current-sensing device of control electronics

are initially supplied to a filter, and the filtered measuring signals are then provided to a microcontroller to suppress interference signals.

Zafarana does not overcome the critical deficiencies noted above with respect to the AAPA. Zafarana discloses a non-linear voltage regulator for an automotive alternator. Zafarana is cited in the Office Action for the disclosure in Figure 3 of providing output signals from a nonlinear filter to a linear filter. However, Zafarana lacks any disclosure relating to an electric motor powered by the presently claimed convertor that includes a device adapted to sense currents fed to the electric motor. Rather, Zafarana discloses a voltage regulator, which has a linear filter, a comparator, and a stretcher filter, connected in cascade with one another between an input terminal and an output terminal of the regulator. The input terminal receives an error signal converted by the comparator into a square-wave error signal, and the output terminal delivers a square-wave output control signal, having a stretched duty cycle over the square-wave error signal by a time delay introduced from the stretcher filter. See Zafarana, column 3, lines 14 to 24. As cited in the Office Action, Figure 3 of Zafarana discloses a voltage regulator 1. At column 3, lines 35 to 43, Zafarana discloses:

The regulator 1 comprises a linear filter 2, specifically of the low-pass type, a comparator 3, and a stretcher filter 4, which are connected, in cascade with one another, between an input terminal I1 and an output terminal O1 of the regulator 1.

In particular, the linear filter 2 has an input terminal I2 connected to the input terminal I1 of the regulator 1, and an output terminal O2 connected to an input terminal I3 of the comparator 3. The latter has an output terminal O3 connected to an input terminal I4 of the stretcher filter 4. The stretcher filter 4 has an output terminal O4 connected to the output terminal O1 of the regulator 1.

One of ordinary skill in the art would understand from Figure 3 that the input terminal I2 of the linear filter 2 receives signals from the non-linear filter of the non-linear filtering section 8 of the regulator 1.

Zafarana clearly disclose that the linear filter, comparator, and stretcher filter are connected in cascade with one another. One of ordinary skill in the art following the disclosure of Zafarana would understand that the output from a linear filter should be supplied to a comparator, and the output of the comparator should then be supplied to a stretcher filter. That is not the arrangement presently claimed.

Rather, one of ordinary skill in the art following the disclosure of Zafarana would not connect the output of the disclosed linear filter 2 to an analog-to-digital converter. Thus, even if one of ordinary skill in the art combined the disclosure of Zafarana with the AAPA, the resulting combination would not provide the presently claimed convertor.

Since the combination of the AAPA and Zafarana fails to disclose, or even suggest, all of the features included in claim 8, it is respectfully submitted that the combination of the AAPA and Zafarana does not render unpatentable claim 8.

As for claims 9, 10, and 12 to 14, which ultimately depend from claim 8 and therefore include all of the features included in claim 8, it is respectfully submitted that the combination of the AAPA and Zafarana does not render unpatentable these dependent claims for at least the reasons more fully set forth above in support of the patentability of claim 8.

Regarding claim 11, Goldberg do not overcome the critical deficiencies noted above with respect to the combination of the AAPA and Zafarana. Goldberg is cited in the Office Action for the alleged disclosure of a run-up transmitter including a comparator and an integrator. However, even if one of ordinary skill in the art would combine the disclosure of Goldberg with the AAPA and Zafarana, the resulting combination would not provide the presently claimed convertor. As such, it is respectfully submitted that the combination of Goldberg, the AAPA, and Zafarana does not render unpatentable claim 11.

In view of all of the foregoing, withdrawal of these rejections is respectfully requested.

III. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Date: November 4, 2009

By: /Clifford A. Ulrich/
Clifford A. Ulrich
Reg. No. 42,194

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200
CUSTOMER NO. 26646